



NALCO CHEMICAL COMPANY

180 N. MICHIGAN AVENUE • CHICAGO, ILLINOIS 60601 • AREA 312-822-1200

November 28, 1973

153976

Cerro Copper Products
East St. Louis, Illinois

Attention: Mr. C. Hummel
Mr. A. Suhre
~~Mr. F. Higham, Plant Manager~~

THIS COPY FOR

*As per Mr. Adkins
TO DIRECT FROM
FUTURE CORRESPONDENCE*

Gentlemen:

The purpose of this correspondence is to summarize the activity of Nalco Chemical Company and to indicate the future objectives in relation to complete water management.

It has been the intention of Nalco in the last year to automate as much as possible to insure proper system operation and chemical economy while providing adequate protection against scale and corrosion. The installation of water meters and automatic chemical pumps has also decreased labor necessary to properly maintain these systems.

Water conservation is a prime target for our future efforts at Cerro and it is our intention to work with your engineering and maintenance departments to obtain optimum use of water and to absolutely minimize waste. I surveyed your water systems when I assumed responsibility from Don Manlove and I can already see areas where water usage rates can be cut substantially.

I am in favor of your idea of establishing a maintenance man who will coordinate laboratory responsibility and system maintenance. This will help insure chemical economics and will provide a working knowledge of the chemical treatment equipment and systems.

Please find enclosed line diagrams and water analyses of several major water systems which I am in the process of re-surveying. The reason for this careful scrutiny is to increase my understanding of your cooling and steam systems so I can insure Cerro the best treatment and optimum results. I will be completing detailed survey forms on all of your systems and will probably need assistance from your maintenance supervisors to be sure all information is accurate.

2A.1 A.
Bobson
W.W.
F.C.
P.T.

C03436

NALCO CHEMICAL COMPANY

Cerro Copper Products
East St. Louis, Illinois

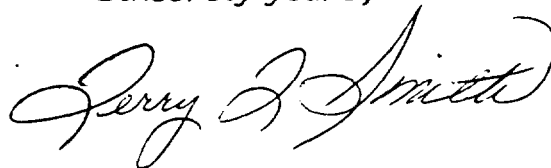
November 28, 1973

2.

Additional future effort will be spent in designing treatment systems for several water systems which presently are not adequately protected. These systems include cooling tower No. 5 and the boiler system in building No. 80.

I appreciate the time and assistance that I have received from Cerro Copper management staff and will assure you I will make every effort to provide excellent service and keep Cerro abreast with the latest water technology.

Sincerely yours,

A handwritten signature in cursive script, reading "Terry T. Smith". The signature is written in dark ink and is positioned above the printed name and title.

Terry T. Smith
District Representative

TTS/ar
Enc.

C03437

NALCO

ENGINEERING SERVICE DEPARTMENT
GRAPHIC REPORT FORM

COMPANY _____

DATE _____

ADDRESS _____

SUBJECT ANALYSIS TAKEN 10/19/73

BY _____

	TOTAL HARDNESS	CALCIUM HARDNESS "P"	ALKALINITY "M"	OH ALKALINITY	SCALE CONTROL(SIA)	POLYOL ESTER (310)	CHLORIDE	DISSOLVED SOLIDS	PH
#1 SOFTENER	1		14	160			32	270	
#2 SOFTENER	3		10	160			32	270	
FEEDWATER	6		10	160			25	370	
CONDENSATE	1								
CB #1 BOILER			220	340	100	28	700	3000	
CB #2 BOILER			150	204	96	20	420	1800	
CB #3 BOILER			200	300	100	27.5	675	2900	
WASTE HEAT BOILER									
B-19 COOLING TOWER		300		280		40		900	8.4
BF #5 COOLING TOWER		190		184		37		600	7.9
<u>MILL</u>									
BA #2 SOFTENER									
BA #3 SOFTENER									
DEGREASER SOFTENER									
BA #2 BOILER			133	170	96	20		1600	
BA #3 BOILER			144	190	98	22.5		1600	
DEGREASER TOWER									
BA #3 COOLING TOWER		142		180		40		560	8.1
BA #5 COOLING TOWER		135		160		52		400	7.9
BA #6 COOLING TOWER		120		134		44		290	7.6
IND HEATER C. TOWER		142		156		40		400	7.8
DEGREASER C. TOWER		136		148		44		270	7.5
J.C COOLING TOWER		256		270		50 ⁺		800	8.1
EXTRUSION BAY C. TOWER		272		296		30		1500	8.5
MAIN MILL C. TOWER		288		302		22		1400	8.6

NOTE: Drawings should show dimensions clearly
and accurately at all pertinent points.

NALCO CHEMICAL COMPANY
180 N. MICHIGAN AVENUE

C03438

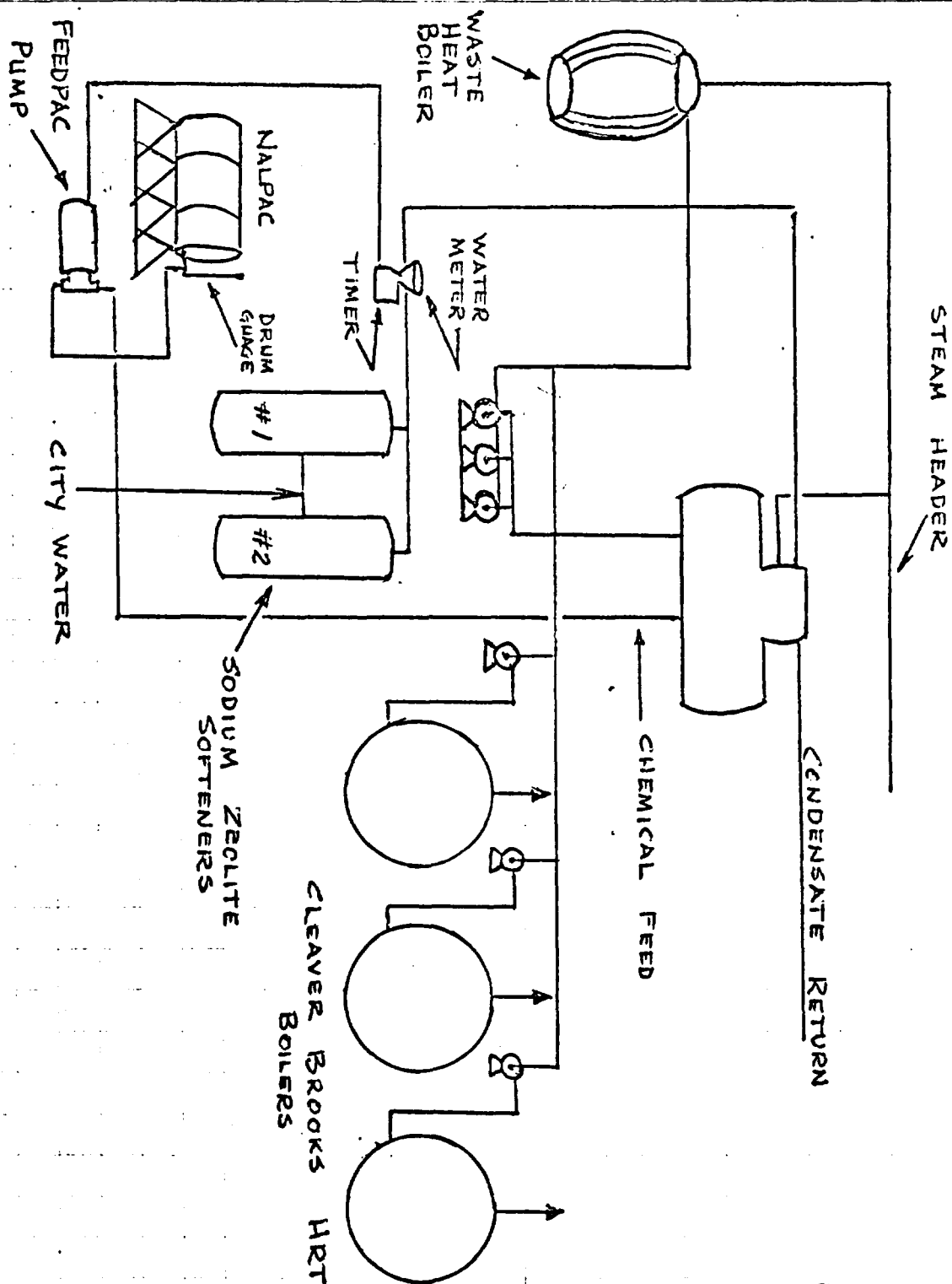


ENGINEERING SERVICE DEPARTMENT
GRAPHIC REPORT FORM

COMPANY CERRO COPPER AND BRASS DATE _____

ADDRESS E. ST. LOUIS, ILL.

SUBJECT AUTOMATIC BOILER TREATMENT BY T. SMITH



C03439

NOTE: Drawings should show dimensions clearly and accurately at all pertinent points.

NALCO CHEMICAL COMPANY
100 E. MICHIGAN AVENUE, CHICAGO, ILL. 60601

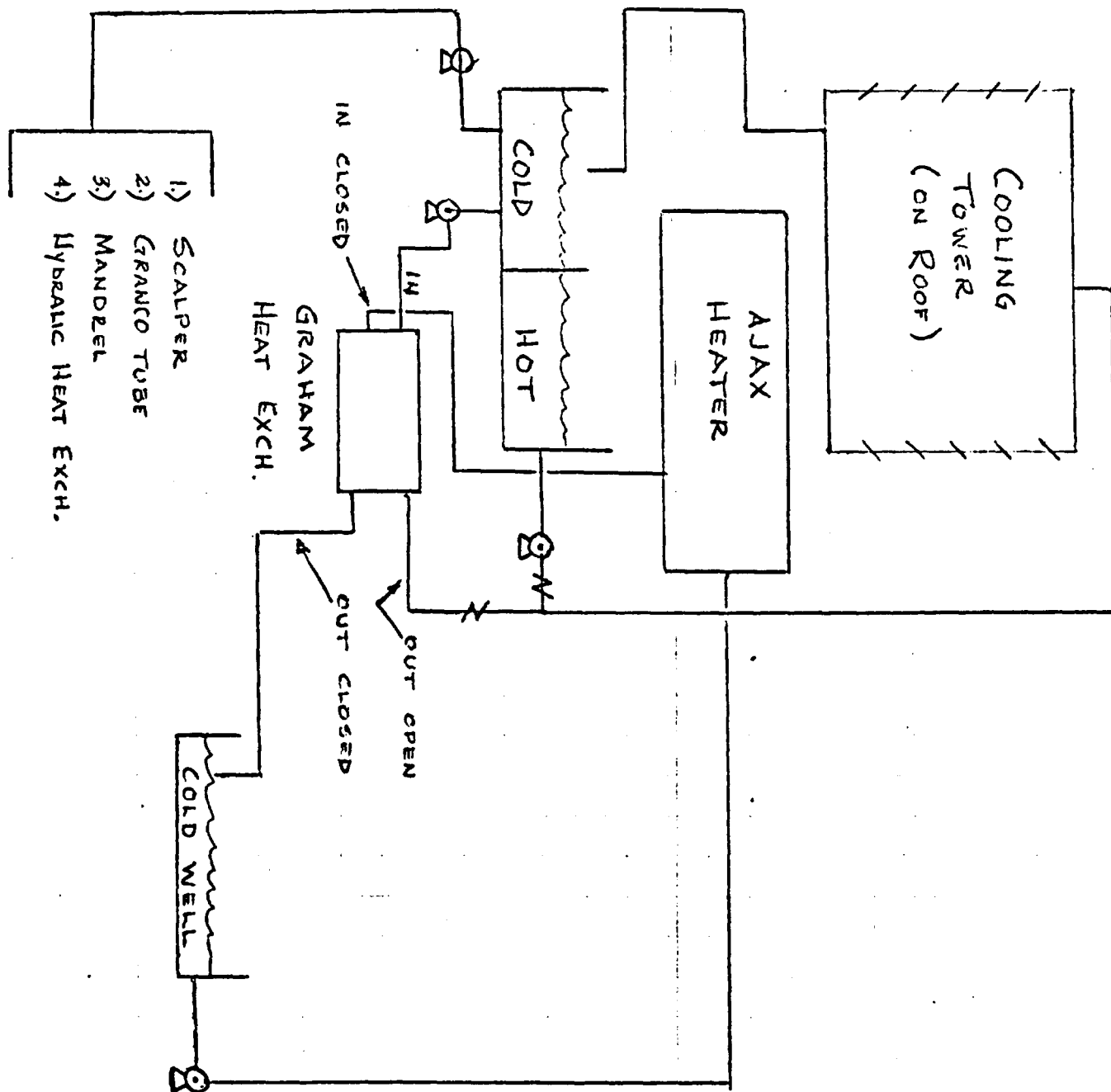
NALCO

ENGINEERING SERVICE DEPARTMENT
GRAPHIC REPORT FORM

COMPANY CERRO COPPER AND BRASS DATE _____

ADDRESS E. ST. LOUIS, ILL

SUBJECT AJAX HEATER & GRAHAM BY T. SMITH
COOLING SYSTEM



C03440

NOTE: Drawings should show dimensions clearly and accurately at all pertinent points.

NALCO CHEMICAL CORPORATION
180 N. MICHIGAN AVENUE, CHICAGO, ILL. 60601

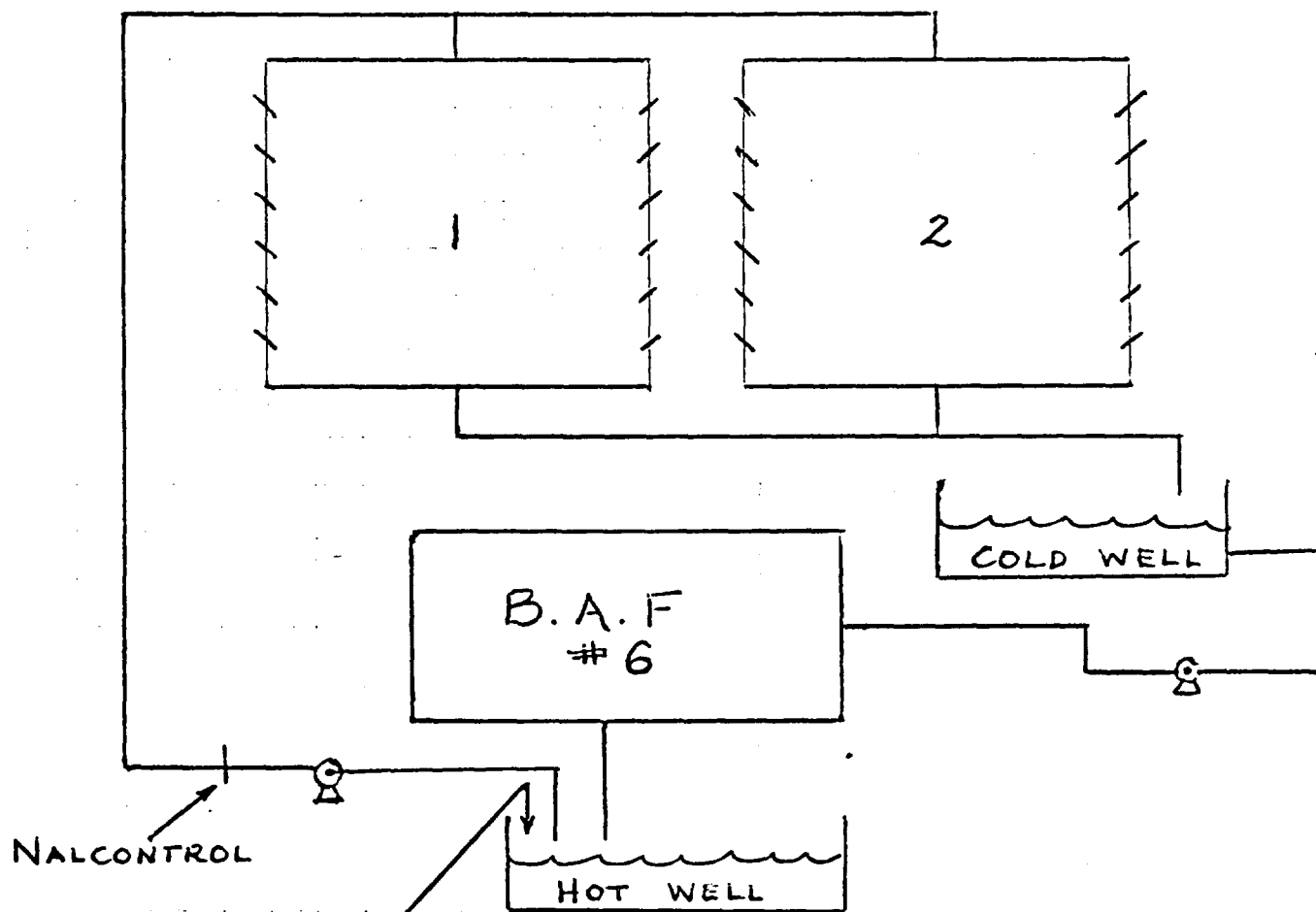
NALCO

ENGINEERING SERVICE DEPARTMENT
GRAPHIC REPORT FORM

COMPANY _____ DATE _____

ADDRESS _____

SUBJECT BLDG 80 , HAVENS TOWERS BY _____



1 > HAVENS TOWERS
2 >

C03441

NOTE: Drawings should show dimensions clearly and accurately at all pertinent points.

NALCO CHEMICAL COMPANY
100 N. MICHIGAN AVENUE • CHICAGO, ILL. 60601

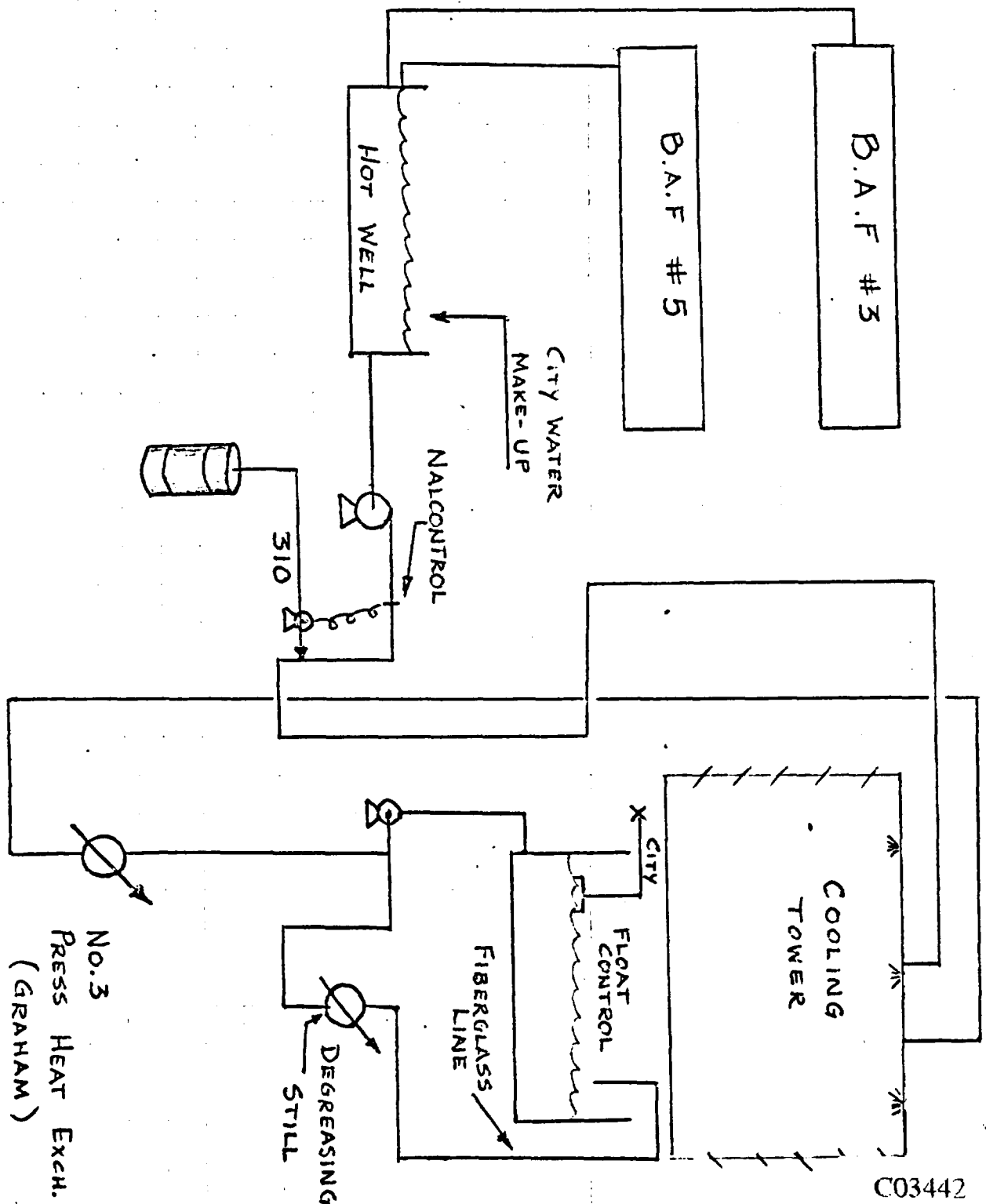


ENGINEERING SERVICE DEPARTMENT
GRAPHIC REPORT FORM

COMPANY CERRO COPPER AND BRASS DATE _____

ADDRESS E. ST. LOUIS, ILL

SUBJECT B.A.F #5 FINNED TUBES AND B.A.F #3 BY T. SMITH
COOLING SYSTEM INCLUDING DEGREASING STILL & NO.3 PRESS HEAT EX.



C03442

NOTE: Drawings should show dimensions clearly and accurately at all pertinent points.

NALCO CHEMICAL COMPANY
180 N. MICHIGAN AVENUE, CHICAGO, ILL. 60601

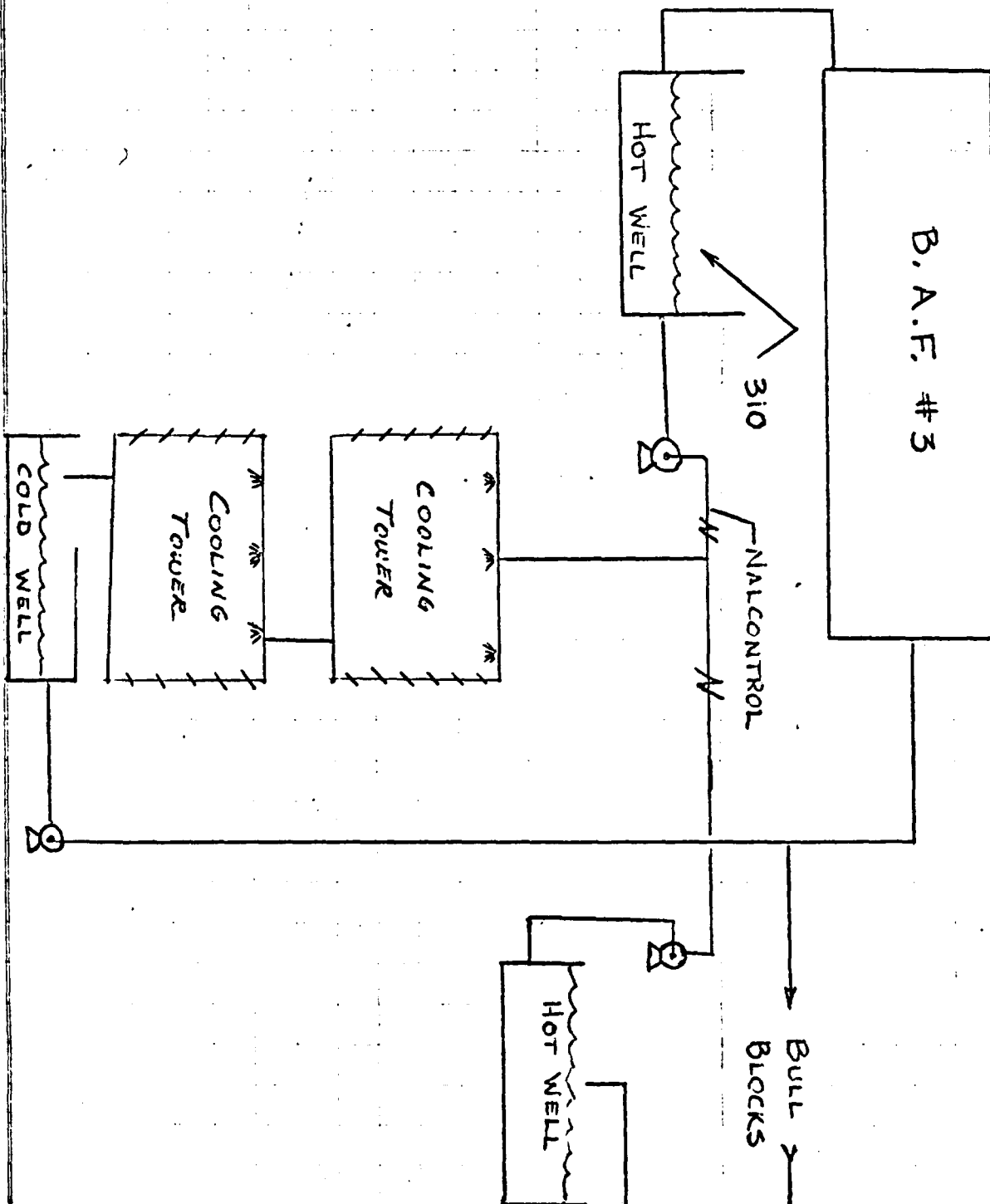


ENGINEERING SERVICE DEPARTMENT
GRAPHIC REPORT FORM

COMPANY CERRO COPPER AND BRASS DATE _____

ADDRESS E. ST. LOUIS, ILL.

SUBJECT B.A.F #3 & BULL BLOCK SYSTEM BY T. SMITH
HEAT EXCHANGERS (20)



C03443

NOTE: Drawings should show dimensions clearly
and accurately at all pertinent points.

NALCO CHEMICAL COMPANY
100 N. MICHIGAN AVENUE CHICAGO, ILLINOIS 60611